SUBJECT INDEX FOR VOLUME III

American Society of Animal Production—
abstracts of papers, 431.
annual meetings, 88.
minutes of business meeting, 97.
president's address, 88.
proceedings of 36th annual meetings, 88.
Analysis, methods of—
feces of cattle, 326.
Antigens—
cellular in dairy cattle, 315, 434.
Army diet—
animal products in, 445.

Beet—
molasses for beef cattle, 437.
pulp for beef cattle, 437.
Bloat—
experimental production and prevention, 441.
factors influencing rate and type of gas formation, 441.
seriousness of problem, 440.
sources of rumen gases, 440.
theories of, 440.

Calcium—
effect on bone growth in foxes, 447.
requirements of ewes, 450.
Carcass grade—
indices of, 444.
Cattle—
analysis of feces, 326.
bloat in, 440, 441.
feed utilization tests, 143.
manure for swine, 453.
pharmacology of uterine muscle, 351.
physiological factors necessary for sperm survival, 129.
physiology of uterine muscle, 351.
relation between motility, percent live sperm and fertility, 433.
treatment of cystic ovaries and nymphomania with AP, 273.
trichomonad carrier-cow problem, 437.
vitamin A requirements of calves, 447.
Cattle, beef—
beet molasses for, 437.
digestibility of pasture forages by steers, 449.
distillery slops for, 435.
fertility on range, 78.
growth in Herefords and crossbreds, 322.
growth on seleniferous range, 299.
molasses beet pulp for, 437.
protein supplements for wintering on forest range, 436.
rate of conception in pasture breeding, 154.
relation of initial weight to gain on pasture, 450.
relation of rate of gain and efficiency, 219.
seasonal variation in digestibility of grasses, 333.
tenderness of representative muscles, 445.
utilization of urea by steers, 436.
value of corn cobs for steers, 436.
Cattle, dairy—
blood changes, during milk fever, 437.
cellular antigens in, 315, 434.
cobalt deficiency in, 438.
diet, effect on milk production, 439.
effect of fat on digestion, 3.
ovarian hormones, dosages required, 432.
rental rate plan for bulls, 283.
saliva, factors in, affecting digestion, 439.
thyroprotein feeding, effect on milk yield, 439.
thyroxine secretion in, 434.
uniformity of get, importance in selecting proved sires, 438.
Cobalt—
deficiency in dairy cattle, 438.
Committees—
chairmen for 1944, 101.
Congenital malformations—
in swine, 406.
Corn—
waxy for swine, 454.
Corn cobs—
value for steers, 436.

Digestion—
analysis of feces in digestion experiments, 326.
effect of fat on, 3.
factors affecting, of pasture forage by steers, 449.
factors in saliva affecting, in rumen, 439.
seasonal variation in, of grasses, 333.
variations in sheep, 449.
Distillers' by-products—
for steers, 435.
for swine, 29, 107, 455.

SUBJECT INDEX FOR VOLUME III

American Society of Animal Production—
abstracts of papers, 431.
annual meetings, 88.
minutes of business meeting, 97.
president's address, 88.
proceedings of 36th annual meetings, 88.
Analysis, methods of—
feces of cattle, 326.
Antigens—
cellular in dairy cattle, 315, 434.
Army diet—
animal products in, 445.

Beet—
molasses for beef cattle, 437.
pulp for beef cattle, 437.
Bloat—
experimental production and prevention, 441.
factors influencing rate and type of gas formation, 441.
seriousness of problem, 440.
sources of rumen gases, 440.
theories of, 440.

Calcium—
effect on bone growth in foxes, 447.
requirements of ewes, 450.
Carcass grade—
indices of, 444.
Cattle—
analysis of feces, 326.
bloat in, 440, 441.
feed utilization tests, 143.
manure for swine, 453.
pharmacology of uterine muscle, 351.
physiological factors necessary for sperm survival, 129.
physiology of uterine muscle, 351.
relation between motility, percent live sperm and fertility, 433.
treatment of cystic ovaries and nymphomania with AP, 273.
trichomonad carrier-cow problem, 437.
vitamin A requirements of calves, 447.
Cattle, beef—
beet molasses for, 437.
digestibility of pasture forages by steers, 449.
distillery slops for, 435.
fertility on range, 78.
growth in Herefords and crossbreds, 322.
growth on seleniferous range, 299.
molasses beet pulp for, 437.
protein supplements for wintering on forest range, 436.
rate of conception in pasture breeding, 154.
relation of initial weight to gain on pasture, 450.
relation of rate of gain and efficiency, 219.
seasonal variation in digestibility of grasses, 333.
tenderness of representative muscles, 445.
utilization of urea by steers, 436.
value of corn cobs for steers, 436.
Cattle, dairy—
blood changes, during milk fever, 437.
cellular antigens in, 315, 434.
cobalt deficiency in, 438.
diet, effect on milk production, 439.
effect of fat on digestion, 3.
ovarian hormones, dosages required, 432.
rental rate plan for bulls, 283.
saliva, factors in, affecting digestion, 439.
thyroprotein feeding, effect on milk yield, 439.
thyroxine secretion in, 434.
uniformity of get, importance in selecting proved sires, 438.
Cobalt—
deficiency in dairy cattle, 438.
Committees—
chairmen for 1944, 101.
Congenital malformations—
in swine, 406.
Corn—
waxy for swine, 454.
Corn cobs—
value for steers, 436.

Digestion—
analysis of feces in digestion experiments, 326.
effect of fat on, 3.
factors affecting, of pasture forage by steers, 449.
factors in saliva affecting, in rumen, 439.
seasonal variation in, of grasses, 333.
variations in sheep, 449.
Distillers' by-products—
for steers, 435.
for swine, 29, 107, 455.

Environment—
adaptability to, in sheep, 433.
effect on weanling traits in range sheep, 432.
Estrus—
effect of stilbestrol on, in mares, 431.
gonadotropins, alteration of cycle in sheep, 432.
physiology of uterine muscle in relation to, 351.

Feeds—
utilization tests with cattle, 143.
Fertility—
in pasture breeding of beef cattle, 154.
in range cattle, 78.
in range horses, 233.
treatment of cystic ovaries and nymphomania in cattle, 273.
Fluorine—
in sheep nutrition, 71.
Freezer lockers—
trends in industry, 445.

Garrigus, H. L.
portrait, 310.
Gestation—
effect of diet on, 447.
in range sheep, 434.
Growth—
effect of heredity and environment in swine, 257.
effect of season, in lambs, 41.
effect of sex, in swine, 120.
in Hereford and crossbred heifers, 322.
in horses on range, 441.
in Karakul and mutton sheep, 50.
in relation to blood components, in swine, 422.
of steers on seleniferous range, 299.
relation to efficiency in steers, 219.
selection for, in swine, 201.

Horses—
B vitamin requirements, 166.
carotene, vitamin A and ascorbic acid in mare's plasma, 346.
fertility on range, 233.
gonadotropin, failure of ascorbic acid to augment, 183.
growth in, on range, 441.
light horses at colleges, 442.
nicotinic acid not essential for, 443.
production of medium weight horses, 442.
stilbestrol, effect on estrus, 431.

Inbreeding—
crosses of lines, in swine, 454.
effects of, in swine, 380.
Iodine—
in sheep nutrition, 71.

Jack stock—
Tennessee project, 442.

Lactation—
effect of diet on, 447.

Manganese—
deficient diets for swine, 136.
Meat—
cookery, 443.
factors influencing keeping of bacon, 444.
frozen lockers for, 445.
in army diet, 445.
nitrite cure of pork, effect on lysine, 445.
rancidity control in, 443.
tenderness of representative beef muscles, 445.
Meat animals—
indices of carcass grade, 444.
thiourea for fattening, 448.
Memorials—
Hinman, R. B., 103.
Jacob, M., 101.
Rodenwald, B. W., 102.
Savage, E. S., 102.
Milk fever—
blood changes during, 437.
Milorganite—
for swine, 453.
Mules—
Tennessee project, 442.

News and notes, 104, 213, 312, 456.
Nicotinic acid—
not essential for horses, 443.
Nitrogen—
utilization of non-protein-N by ruminants, 287.

Oats—
effect of fineness of grinding for swine, 446.
Ovarian hormones—
dosages for dairy cattle, 432.

Paralysis agitans—
in swine, 406.
Pasture—
factors affecting digestibility by steers, 449.

gains of steers on, 450.
monthly variation in content of range grass, 449.
seasonal variation in digestibility, 333.
winter wheat for ewes, 452.
Peas—
cull, for swine, 455.
Phenothiazine—
anthelmintic for ewes, 452.
efficiency of drench for sheep, 242.
Phosphorus—
availability of various phosphates, 446.
effect on bone growth in foxes, 447.
factors affecting in blood of ewes, 175.
monthly variation in range grass, 449.
requirements of ewes, 450.
requirement of lambs, 63.
Productive value—
in sheep, 435.
Prolificacy—
genetically reduced, 435.
non-genetic factors affecting, in swine, 455.
Protein—
monthly variation in range grass, 449.

Rat—
relation of ascorbic acid to gonadotropin effects, 183.
Rumen—
factors influencing rate and type of gas formation, 441.
sources of gases in, 440.
Ruminants—
utilization of non-protein nitrogen, 287.

Selection—
importance of uniformity in get of dairy sires, 438.
Selenium—
effect on growth of range steers, 299.
Semen—
effect of barometric pressure on, 431.
epididymal and ejaculated, of boar, 360.
factor in egg yolk affecting resistance and storage, 433.
physiological factor necessary for survival of bull sperm, 129.
relation between motility, percent live sperm and fertility in bull, 433.
Sheep—
blood constituents, effect of nutrition and age on, 451.
body temperature and respiration rate, relative to adaptability, 433.
calcium and phosphorus requirements of ewes, 450.
effects of environment on weanling traits, 432.
estrual cycle, alteration with gonadotropins, 432.
factors affecting phosphorus in blood, 175.
factors affecting productive value, 435.
fertility of ova produced by gonadotropins, 12.
gestation period, 434.
growth in Karakul and mutton breeds, 50.
growth in Navajo lambs, 41.
iodine-fluorine relationships in nutrition, 71.
mortality of lambs in relation to nutrition of ewe, 451.
phenothiazine drench for, 242, 452.
phosphorus requirements of lambs, 63.
plasma ascorbic acid in, 340.
post-natal development of fibers in Navajo, 194.
relation between weight, gain and grades, 224.
seasonal variation in digestibility of grasses, 333.
semen, effect of barometric pressure on, 431.
stiff-lamb disease, prevention of losses, 453.
survival of hormone-induced multiple pregnancies, 22.
variation in digestive capacity, 449.
winter-wheat pasture for ewes, 452.
wool, see wool.
Silage—
use of urea in making, 59.
Soybeans—
riboflavin content of, 448.
Swine—
abnormalities of nutritional origin, 406.
bacon, factors affecting keeping, 444.
blood components in relation to growth, 422.
concentrate mixture for, 250.
corn-soybean ration for, 415.
crossing inbred lines, 371.
deficiencies of all-plant ration for weanlings, 454.
development of body form, 188.
distillers' by-products for, 29, 107, 455.
effect of heredity and environment on growth, 257.
effects of inbreeding and selection, 380.
effect of sex on development, 120.

epididymal and ejaculated sperm of, 360.
gestation, effect of diet on, 447.
growing and fattening rations for, 29, 107.
heritability of type, 390.
hybrid vigor in crosses of inbred lines, 454.
lactation, effect of diet on, 447.
lactation rations, 107.
low manganese diets for, 136.
milorganite and cattle manure as supplements, 453.
nitrite cure of pork, effect on lysine, 445.
non-genetic factors affecting prolificacy, 455.
oats for, effect of fineness of grinding, 446.
peas, cull, for pigs, 455.
predictive value of early scores, 399.
selection for growth and productivity, 201.
thiamin, relation of amount fed to deposition in tissues, 446.
waxy corn for, 454.
Syndactylism—
in swine, 406.

Talipes—
in swine, 406.
Thiamin—
relation of amount fed swine to deposition in tissues, 446.
Trichomoniasis—
carrier-cow problem, 437.
Thiourea—
use of in fattening meat animals, 448.
Thyroprotein—
effect of feeding on milk production, 439.
Thyroxine—
secretion, measuring in dairy animals, 434.

Urea—
use in making silage, 59.
utilization by steers, 436.

Vitamins—
A in lamb's plasma, 448.
A in mare's plasma, 346.
A requirements of calves, 447.
ascorbic acid in mare's plasma, 346.
ascorbic acid in plasma of sheep, 340.
B requirements of horse, 166.
C in blood plasma of lambs, 448.
carotene in mare's plasma, 346.
D intake, effect on bone growth in foxes, 447.
failure of C to augment gonadotropin in rat, 183.
nicotinic acid not essential for horses, 443.
riboflavin content of soybeans, 448.
thiamin, relation of amount fed to deposition, 446.

Wool—
clean yields of samples and whole fleeces, 159.
clean yields of side samples from weanlings and yearlings, 451.
influence of lactation and size of sample in predicting clean yields, 452.
post-natal development of fibers in Navajo, 194.

AUTHOR INDEX FOR VOLUME III

Accame, F., 341, 433.
Alba, J. de, 432.
Almquist, J. O., 183.
Anderson, H. D., 299.
Andrews, F. N., 71, 183.
Asdell, S. A., 351, 432, 453.

Baker, A. L., 78, 219, 322.
Bartlett, J. W., 283.
Bassett, C. F., 447.
Beard, F. J., 444.
Beeson, W. M., 63, 175, 450.
Bell, D. S., 451.
Berliner, V. R., 431.
Berryman, G. H., 445.
Biswell, H. H., 436.
Bivins, J. A., 451.
Black, W. H., 435.
Blunn, C. T., 41, 194, 451.
Bogart, R., 360.
Bohstedt, G., 406, 415, 448, 453.
Bolin, D. W., 63, 175.
Brady, D. E., 443.
Briggs, H. M., 436.
Burroughs, W., 436.

Cabell, C. A., 446.
Carroll, W. E., 29, 107, 250, 447, 454.
Casida, L. E., 12, 22, 273, 432.
Cline, J. A., 443.
Cole, C. L., 340, 346, 451.
Cole, H. H., 441.
Comstock, R. E., 120, 188, 257, 380, 422, 443, 448.
Cox, R. F., 452.
Crampton, E. W., 333, 446.
Culbertson, C. C., 454.
Cullison, A. E., 59.
Cummings, J. N., 120.
Cunha, T. J., 406, 415, 446, 455.
Cupps, P. T., 351.

Darlow, A. E., 436.
Dawson, W. M., 233, 441.
Dickerson, G. E., 201, 390, 454.
Dinsmore, W., 442.
Doyle, L. P., 71.
Duncan, H. R., 442.
Duncan, C. W., 438.
Dutt, R. H., 432.

Elliott, R. F., 449.
Ellis, N. R., 435, 446.
Ensminger, M. E., 437, 446, 455.

Fairbanks, B. W., 29, 107, 250, 447, 454.
Forbes, E. B., 449.
Foster, J. E., 436.

Gallup, W. D., 326, 436.
Garey, J. C., 287.
Garrigus, W. P., 435, 449.
Gerlaugh, P., 436.
Gobble, J. L., 250.
Good, B. H., 442.
Grandstaff, J. O., 194, 451.
Green, W. W., 371, 399.
Greenwood, D. A., 444.
Gregory, P. W., 143.
Grummer, R. H., 453.
Guilbert, H. R., 143.

Halverson, J. O., 448.
Hamilton, T. S., 287.
Hankins, O. G., 444.
Hanson, L. E., 454.
Harris, L. E., 447.
Hart, G. H., 91.
Hatfield, J. D., 71.
Hazel, L. N., 159, 201, 432, 452.
Heinemann, W. W., 446.
Henning, W. L., 242, 452.
Herman, H. A., 439.
Hetzer, H. O., 390.
Hibbs, J. W., 437.
Hickman, C. W., 63.
Hobbs, C. S., 326.
Hodgson, R. E., 371.
Hopper, H. D., 453.
Hostetler, E. H., 436.
Hudson, R. S., 442.
Huffman, C. F., 438, 439, 440.

Irwin, M. R., 315, 434.

Jackson, I. R. C., 333.
Johnson, B. C., 287.
Johnson, L. E., 224, 438.
Johnson, R. F., 63.
Johnson, S. R., 136.
Jordan, P. S., 371.

Killham, B. J., 438.
King, T. A., 250.
Kiser, O. M., 371.
Kleiber, M., 440.
Knapp, B., Jr., 219.
Knox, J. H., 449.
Knukle, L. E., 436.
Koonz, C. H., 445.
Krauss, W. E., 437.
Kraybill, H. R., 444, 445.
Krider, J. L., 29, 107, 250, 447, 454.

Lasley, J. F., 129, 360, 433.
Lewis, J. M., 447.
Loosli, J. K., 3, 439, 453.
Lucas, H. L., 3, 439.
Luecke, R. W., 443.
Lush, J. L., 454.

Mayer, D. T., 129, 433.
Maynard, L. A., 88.
McCulloch, E. C., 446.
McIntyre, G. S., 438.
McShan, W. H., 12, 273.
Meyer, R. K., 22, 273, 432.
Miller, J. C., 431, 433.
Miller, M. J., 340, 346, 451.
Monge, L., 431, 433.
Monroe, C. F., 437.
Morgan, B. B., 437.
Morrison, F. B., 453.
Mott, G. O., 450.
Moxon, A. L., 299.
Murphree, R. L., 12.

Nordskog, A. W., 257, 422.

Olafson, P., 453.
Olson, O. E., 299.
Olson, T. M., 441.
Owen, R. D., 315, 434.

Pearson, P. B., 166, 443.

Perry, E. J., 283.
Phillips, P. H., 406, 415, 448.
Phillips, R. W., 233, 441.
Pohle, E. M., 159, 452.
Pollock, R. C., 443.
Pope, A. L., 448.

Quesenberry, J. R., 78, 322.

Ragsdale, A. C., 439.
Ramsbottom, J. M., 445.
Rasmussen, R. A., 340, 346.
Reid, J. T., 438, 439.
Reineke, E. P., 439, 448.
Rhian, M. A., 299.
Rhoad, A. O., 154.
Robinson, W. B., 287.
Robison, W. L., 454.
Ross, O. B., 406, 415.
Scales, J. W., 431.
Schalk, A. F., 436, 440.
Schmidt, H., 166, 443.
Schultze, A. B., 434, 448.
Sherwood, F. W., 448.
Sheybani, M. K., 166.
Shigley, J. F., 242.
Shrewsbury, C. L., 71.
Silver, E. A., 436.
Simmons, V. L., 50.
Singleton, H. P., 437.
Smith, F. H., 443.
Speelman, S. R., 233, 441.
Stewart, H. A., 455.
Stormont, C. J., 315, 434.
Strandine, E. J., 445.
Stritar, J. E., 444.
Sutton, T. S., 437.
Swift, R. W., 449.
Synold, R. E., 455.
Terrill, C. E., 175, 432, 434.
Thorp, F. J., 340, 451.
Thorp, W. T. S., 242, 452.
Turner, C. W., 434, 439, 448.
Tyler, W. J., 435.

Warner, K. F., 445.
Warwick, E. J., 12, 22, 455.
Watkins, W. E., 449.
Weber, A. D., 97.
Wilder, O. H. M., 445.
Wilke, C. F., 447.
Willman, J. P., 453.
Wilson, L. T., 447.
Winters, L. M., 120, 188, 257, 371, 380, 399, 422, 435.

Zeller, J. H., 390.